



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,272	02/24/2006	Yoshihisa Takayama	3712174-832	8827
29175 K&L Gates LLP P. O. BOX 1135 CHICAGO, IL 60690	7590 12/09/2010		EXAMINER SHAH, TUSHAR S	
			ART UNIT 2184	PAPER NUMBER
			NOTIFICATION DATE 12/09/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

### Office Action Summary

**Application No.**

10/557,272

**Applicant(s)**

TAKAYAMA ET AL.

**Examiner**

TUSHAR S. SHAH

**Art Unit**

2184

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

This action is in response to the amendment filed on September 9<sup>th</sup>, 2010.

### ***Status of Claims***

Claims 7-17 are pending, of which claims 7, 8, and 11-13 are in independent form.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehrmann US Patent No. 7,216,231 B2 (hereinafter Gehrmann) in view of Saito et al. US Publication No. 2003/0093542 A1 (hereinafter Saito).

**Referring to claim 7**, Gehrmann discloses, a communication system having a plurality of communication apparatuses (201 and 211 Fig. 2a), each of the plurality of first communication apparatuses comprising:

first communication means (First is WAP utilizing WTLS, column 4, lines 33-40 and Fig. 3b), for executing a communication between each communication apparatus and a second communication apparatus (216, Fig. 2a) by a first communication protocol (column 2, lines 62-65),

acquisition means for, before (a) requesting usability of at least one communication protocol from the second communication apparatus (secure WTLS handshake, column 10, lines 55-60; and (b) acquiring protocol information of a second communication protocol which is available by the second communication apparatus (BD\_ADDR, column 10, lines 65-67 and column 11, lines 1-2), acquiring using the first communication, identification information (first identification key, column 2, lines 62-63).

exchange means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for exchanging communication information (first identification key, column 2, lines 62-63) necessary to a second communication executed using the second communication protocol (Bluetooth, column 13, line 20) between each first communication apparatus and the second communication apparatus by the first communication executed by the first communication protocol (the exchange is performed using a first communication protocol, column 62-63);

switching means (Bluetooth pairing, column 13, lines 30-33) for switching the first communication between each communication apparatus and the other communication apparatus from the communication executed by the first communication protocol to the second communication executed by the second communication protocol (a Bluetooth

connection is established once initial key and security information are exchanged via the first communication protocol, Fig. 3b, column 11, lines 50-55); and

second communication means (Bluetooth, Fig. 3b) for executing the second communication by the second communication protocol between each first communication apparatus and the other communication apparatus based on the communication information exchanged by the exchange means (column 4, lines 5-12).

It is noted that Gehrmann does not appear to explicitly disclose, information formed by a random number of the second communication apparatus.

However, Saito discloses information formed by a random number of the second communication apparatus (instead of using the node ID of its own address, a generated random number maybe used, page 6 paragraph 0080, lines 1-6).

Saito and Gehrmann are from the same field of endeavor, specifically, they both deal with establishing communications in a Bluetooth environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize the random number generated in Saito as the key in Gehrmann.

The suggestion/motivation for doing so is apparent in Saito, at page 6 paragraph 0090, lines 1-8, where it states that in the event that a device cannot determine the other existing devices on the network, such as in a bad radio environment, a random address is selected in order to prevent address overlap.

Therefore it would have been obvious to combine Gehrmann and Saito to obtain the invention as described in the instant claim.

**Referring to claim 8**, Gehrmann discloses, a communication apparatus, comprising:

first communication means (First is WAP utilizing WTLS, column 4, lines 33-40 and Fig. 3b) for executing a first communication between the communication apparatus and another communication apparatus by a first communication protocol (column 2, lines 62-65);

acquisition means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for acquiring identification information (first identification key, column 2, lines 62-63) of the another communication apparatus by the first communication executed by the first communication protocol before (a) requesting usability of at least one communication protocol and (b) acquiring protocol information of a second communication protocol (Bluetooth, Fig. 3b) which is available by the another communication apparatus through the first communication executed by the first communication protocol (the first identification key is exchanged to secure the connection before Bluetooth addresses exchange and pairing, Fig. 3b);

exchange means (PIN value is exchanged by WTLS on WAP, column 10, lines 22-29) for exchanging communication information necessary to a communication executed using the second communication protocol (Bluetooth address information is exchanged prior to Bluetooth Pairing, Fig. 3b) between the communication apparatus and the another communication apparatus by the first communication executed using the first communication protocol (column 2, lines 62-65);

switching means (Bluetooth pairing, column 13, lines 30-33) for switching the first communication between the communication apparatus and the another communication apparatus from the first communication executed by the first communication protocol to the second communication executed using the second communication protocol (a Bluetooth connection is established once initial key and security information are exchanged via the first communication protocol, Fig. 3b, column 11, lines 50-55); and second communication means (Bluetooth, Fig. 3b) for executing the second communication by the second communication protocol between the communication apparatus and the other communication apparatus based on the communication information exchanged by the exchange means (column 4, lines 5-12).

It is noted that Gehrmann does not appear to explicitly disclose, formed by a random number of the another communication apparatus.

However, Saito discloses formed by a random number of the another communication apparatus (instead of using the node ID of its own address, a generated random number maybe used, page 6 paragraph 0080, lines 1-6).

Saito and Gehrmann are from the same field of endeavor, specifically, they both deal with establishing communications in a Bluetooth environment.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize the random number generated in Saito as the key in Gehrmann.

The suggestion/motivation for doing so is apparent in Saito, where it states that in the event that a device cannot determine the other existing devices on the network,

such as in a bad radio environment, a random address is selected in order to prevent address overlap.

Therefore it would have been obvious to combine Gehrman and Saito to obtain the invention as described in the instant claim.

**As per claim 9**, Gehrman discloses, the first communication executed by the first communication protocol and the second communication executed by the second communication protocol include wireless communication (First is WAP utilizing WTLS and the second is Bluetooth, column 4, lines 33-40 and Fig. 3b), and, when the another communication apparatus is located in the vicinity of the communication apparatus, the first communication means executes the first communication by the first communication protocol between the communication apparatus and the another communication apparatus (column 8, lines 47-55).

**As per claim 10**, Gehrman discloses, the first communication is executed by specifying the another communication apparatus, located in the vicinity of the communication apparatus (column 8, lines 47-55).

**Referring to claim 11**, corresponding limitations as in claim 8 are recited. Therefore the rejection of claim 8 applies to claim 11.

**Referring to claim 12**, corresponding limitations as in claim 8 are recited.

Therefore the rejection of claim 8 applies to claim 12.

**Referring to claim 13**, corresponding limitations as in claim 8 are recited.

Therefore the rejection of claim 8 applies to claim 13.

**As per claim 15**, Gehrmann discloses, the acquisition unit repeatedly executes polling for requesting identification information until a response is received (column 8, lines 47-51).

**As per claim 16**, Gehrmann discloses, a transaction ID and a transaction key are exchanged with the second communication apparatus for mutual authentication (Fig. 5b), through the communication using the first communication protocol, wherein mutual authentication occurs after acquiring the identification information and before acquiring the setting information (the first identification key is exchanged to secure the connection before Bluetooth addresses exchange and pairing, Fig. 3b).

**As per claim 17**, the communication apparatus is a first mobile apparatus and the second communication apparatus is a second mobile apparatus (column 9, lines 15-20).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gehrman in view of Saito as applied to claim 13 above, further in view of Nolan et al. US Publication No. 2004/0193402 A1 (hereinafter Nolan).

**As per claim 14**, it is noted that Gehrman does not appear to explicitly disclose, the first communication protocol is NFCIP-1.

However, Nolan discloses, wherein the first communication protocol is NFCIP-1 (the wireless standard may be NFCIP-1).

Nolan and Gehrman are from the same field of endeavor; specifically they both deal with transmitting data from mobile units utilizing short range radio frequency communications.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize NFC as the communication for the shorter range radio link.

The suggestion/motivation for doing so would have been that near field communications are ideal for and widely used as part of the initialization of a Bluetooth pairing because of the shorter initialization time as compared to Bluetooth.

***Response to Arguments***

Referring to claim 7, applicant has argued, on page 10 of the response, that Gehrmann does not disclose, "(a) requesting usability of at least one communication protocol and (b) acquiring protocol information of a second communication protocol which is available by the another communication apparatus through the first communication executed by the first communication protocol."

The examiner disagrees. Gehrmann discloses establishing a secure WTLS connection and once the connection is secured, a Bluetooth address is provided along with a PIN/key, effectively informing the device that Bluetooth is an available protocol and providing the information necessary to establish a Bluetooth connection. See column 10, lines 55-67 and column 11, lines 1-10.

The grounds of rejection to claim 7 are maintained. The body of the rejection has been updated to reflect the amendments made.

Regarding claims 8-17, the applicant has argued that these claims are allowable for the same reasons as claim 7. As the issue with claim 7 is seen as being overcome, the grounds of rejection to these claims are also maintained.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUSHAR S. SHAH whose telephone number is (571)270-1970. The examiner can normally be reached on Mon-Fri 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on 571-272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. S. S./

/Henry W.H. Tsai/  
Supervisory Patent Examiner, Art Unit 2184